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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/722,787 | 11/26/2003 | Herbert Ulmer | FDN-2699/CIP/X | 7241 |

7590

05/20/2005

Attn: William J. Davis, Esq.
INTERNATIONAL SPECIALTY PRODUCTS
Legal Department, Building No. 10
1361 Alps Road
Wayne, NJ 07470

EXAMINER

VANIK, DAVID L

ART UNIT

PAPER NUMBER

1615

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,787

Applicant(s)

ULMER ET AL.

Examiner

David L. Vanik

Art Unit

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date: 4/18/05
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Receipt is acknowledged of the applicant's Oath or declaration filed on 3/4/2004.

Double Patenting

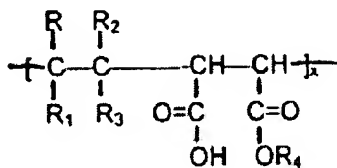
A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

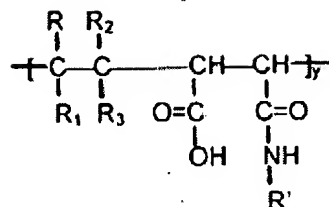
Claims 1-16 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-16 of copending Application No. 10/353390. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The instant application, like copending Application No. 10/353390, is directed to a product of mixing a compound, "A", together with a compound or polymer having a carboxylic acid functionality. According to the instant claim 1, Compound "A" is the following:

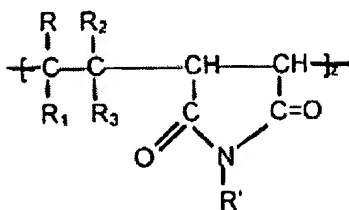
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(a) half-ester or full acid



(b) maleamic acid



(c) maleimide

where:

R, R₁, R₂ and R₃ are selected from H, alkyl, alkoxy, cycloalkyl, aryl, ester, acid, hydroxy, hydroxyalkyl, amido, fluoro, halo and silyl, and R₄ is H or alkyl; and

R' is a derivatizing group selected from X, a hydrophobic amine; Y, a hydrophilic amine; and Z a polyether amine; and suitable mixtures thereof, wherein:

x, y and z are present, in mole %, of 0-99.9, 0-50 and 0.1-100, respectively; and X, Y and Z are present in mole ratios of 0-50:0-100:0-20,

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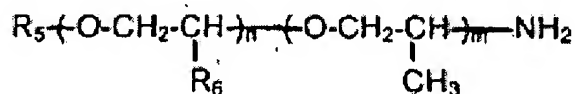
The only noticeable difference between claim 1 of the instant application and claim 1 of copending Application No. 10/353390 is the preamble. Claim 1 of the instant application is drawn to a "personal care composition" whereas claim 1 of copending Application No. 10/353390 is directed to a "product." Since the phrases "personal care composition" and "product" are considered to be future intended use, they are given no patentable weight.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Independent Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the following R' derivatizing group:



where R_5 and R_6 are selected from H and alkyl; and n and m are integers from 1-50.

does not reasonably provide enablement for the generic hydrophobic amine (X), hydrophilic amine (Y), and polyether amine (Z) groups. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly

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connected, to practice the invention commensurate in scope with these claims.

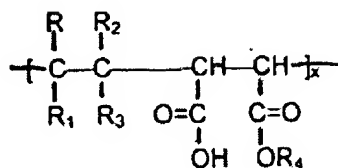
Dependent claims 2-18 are objected to as being dependent from a rejected claim.

Enablement is considered in view of the Wands factors (MPEP 2164.01 (a)).

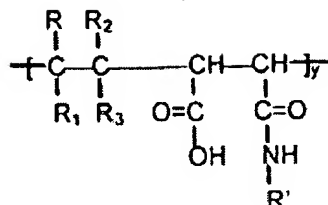
These include: breadth of the claims; nature of the invention; state of the prior art; amount of direction provided by the inventor; the level of predictability in the art; the existence of working examples; quantity of experimentation needed to make or use the invention based on the content of the disclosure; and relative skill in the art. All of the factors have been considered with regard to the claim, with the most relevant factors discussed below:

The breadth of claims: Independent claims 1 and dependent claims 2-18 are directed to a product of mixing a compound, "A", together with a compound or polymer having a carboxylic acid functionality. According to the instant claim 1, Compound "A" is the following:

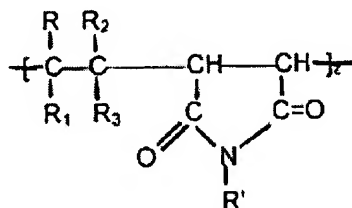
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(a) half-ester or full acid



(b) maleamic acid



(c) maleimide

where:

R, R₁, R₂ and R₃ are selected from H, alkyl, alkoxy, cycloalkyl, aryl, ester, acid, hydroxy, hydroxyalkyl, amido, fluoro, halo and silyl, and R₄ is H or alkyl; and

R' is a derivatizing group selected from X, a hydrophobic amine; Y, a hydrophilic amine; and Z a polyether amine; and suitable mixtures thereof; wherein:

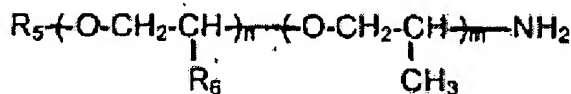
x, y and z are present, in mole %, of 0-99.9, 0-50 and 0.1-100, respectively; and X, Y and Z are present in mole ratios of 0-50:0-100:0-20.

Considering the scope of the R' derivatizing groups, this is a very broad claim, one that is not supported by the instant specification.

The nature of the invention: The instant invention is directed to a product of mixing a compound, "A", together with a compound or polymer having a carboxylic acid

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functionality. Viewed in light of the instant specification, the R' derivatizing group is directed to the following group



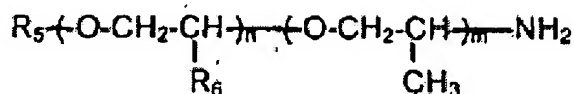
where R₅ and R₆ are selected from H and alkyl; and n and m are integers from 1-50.

The rejected claims, however, are drawn to a product of mixing a compound, "A", together with a compound or polymer having a carboxylic acid functionality wherein the R' derivatizing group is selected from a hydrophobic amine (X), hydrophilic amine (Y), and polyether amine (Z) groups.

The amount of direction provided by the inventor: There is nothing in the specification that would indicate that the current invention can support the generic concept of R' being selected from a hydrophobic amine (X), hydrophilic amine (Y), and polyether amine (Z) groups. These are very broad chemical groups, yielding a huge number of different possible compounds. The only mention of the hydrophobic amine (X) and hydrophilic amine (Y) groups is on page 5 of the instant specification. In terms of the polyether amine (Z) groups, only one compound, a Jeffamine derivative, is enumerated in the instant specification (see pages 6, 8-12).

There is, however, sufficient direction provided by the instant specification to support the following R' derivatizing group (see pages 6, 8-12):

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where R_5 and R_6 are selected from H and alkyl; and n and m are integers from 1-50.

The presence or absence of working examples: Applicant describes 5 examples in the instant specification, none of which teach R' groups selected from a hydrophobic amine (X) or hydrophilic amine (Y). The only polyether amine (Z) group mentioned in the instant specification is Jeffamine.

The quantity of experimentation: In the instant case, there is a substantial gap between compound "A" comprising hydrophobic amine (X) or hydrophilic amine (Y) groups verses compound "A" comprising a specific hydrophilic amine (Y) group, Jeffamine. Consequently, a burdensome amount of research would be required by one of ordinary skill in the art to bridge this gap. In order to utilize the composition as claimed, the skilled artisan would be presented with an unpredictable amount of experimentation.

The relative skill of those in the art: the skill of one of ordinary skill in the art is very high, e.g., Ph.D. and M.D. level technology.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 6,025,501, US Patent 5,994,385, and US Publication 2004/0042989 are cited as patents of interest in their disclosure of polymer comprising (a) a monomer-maleic anhydride alkyl half-ester or full acid, (b) maleamic acid, and (c) maleimide. US Patent 6,025,501, US Patent 5,994,385, and US Publication 2004/0042989 are applicant's own work and appear to be the closest prior art.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Vanik whose telephone number is (571) 272-3104. The examiner can normally be reached on Monday-Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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David Vanik, Ph.D.

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SUPERVISORY PATENT EXAMINER
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